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RECENT EXCAVATION AND EXPLORATION IN PALESTINE

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Since the appearance of Professor David G. Lyon's article entitled "Recent Excavations in Palestine," which was published in the January number of *The Harvard Theological Review*, 1908, other ancient Biblical sites have been explored and many noteworthy discoveries have been made. And now that the work of excavation and exploration has been indefinitely arrested by the outbreak of war, it seems especially fitting that what has been accomplished during the past six or seven years should be collected and summarized.

In the article referred to, Professor Lyon gave an account of the explorations at Tell el-Hesi (ancient Lachish) in 1890-92; of the four *tells*—Zachariya, es-Safi, el-Judeideh, and Sandahannah—in the Shephelah in 1898-1900; of Gezer in 1902-1907; of Ta'anach in 1902-05; of Tell Mutesellim (Megiddo) in 1903-05; of Tell Hum (Capernaum?) in 1905; and of certain valuable "finds" by the Arabs in the two Canaanite cemeteries at Samieh near Bethel in 1906-07.

Since 1907, when Professor Lyon wrote his article, among the new sites which have yielded gratifying results are Jericho, Samaria, Bethshemesh, Ophel, Mt. Zion, Balata (ancient Shechem?), and Carchemish, the great capital of the ancient Hittites. Besides these, here and there throughout the country many other discoveries have been made, notably the richly orna-

mented sarcophagus of Turmus 'Aya, numerous anthropoid sarcophagi at Sidon, the standard Jewish "Talent," and a full set of Hebrew wet and dry measures at Jerusalem; besides an exceptionally fine mosaic floor with numerous colored animal figures and various Greek inscriptions found near the crest of Mt. Nebo.

The principal explorers during recent years have as usual been the English, Germans, and French; but the Americans have also made a beginning. All excavation has of course been seriously interrupted by the war. The Palestine Exploration Fund had already left off actively excavating in 1912, long before there was any talk of war; in fact they ceased digging at Bethshemesh before their Field Secretary, Dr. Duncan Mackenzie, had satisfactorily completed his examination of that place. On the other hand, Captain Newcombe, representing the Fund, was busy during the winter of 1913-14 surveying the northern portion of the Sinai Peninsula. The Germans have continued their work at Balata, adding much new and valuable material to the history of Central Palestine, especially of ancient Shechem. For it should be remembered that even Central Palestine, the most familiar portion of the country to Bible students, which has been visited and revisited over and over again by tourists and to some extent scientifically explored, is still rich in archaeological treasures, which ought to be investigated and given to the world. Surely the discoveries of the past quarter of a century warrant the conclusion that even still greater "finds" await those who will devote themselves to the careful and thorough research of the Holy Land. And especially now does this hold good, inasmuch as the way is today more accurately and scientifically prepared for a correct interpretation of what is discovered. From the different types of pottery found to prevail in almost every *tell*, it is now comparatively easy to trace the successive civ-

ilizations that lie embedded in any given site. The chronology of pottery is on such a sound basis that "the dating of the various strata of a city has become," as Macalister says, "almost mechanical." Accordingly it is reasonable to hope that shortly it will be possible, from the accumulated materials obtained through excavation, to write a history of Palestine from the archaeological point of view. Great is the encouragement, therefore, to continue as soon as peace is re-established the work which has been so patiently, laboriously, and successfully begun.

JERICO

Between the years 1902 and 1909 Professor E. Sellin of Vienna dug over the hill of Jericho, and in 1913 he and Dr. Watzinger published an account of their excavations in a monograph entitled *Jericho, Die Ergebnisse der Ausgrabungen*. As is well known, the location of ancient Jericho was strategic. It lay on the caravan route from Gilead and Moab to Central Palestine. Both in war and peace it supplied the highlanders of Ephraim, Benjamin, and Judah with necessary food products. The *tell* itself is well fortified by nature, rising some forty feet above the level of the surrounding plain. In form it is an irregular egg-shaped mound, one thousand one hundred feet long by five hundred feet broad, having a total area of only about twelve acres. It was fortified in ancient times by a thick wall, whose foundations give evidence of great skill in construction. The height of its wall was sixteen feet and its length approximately half a mile. At the north end of the city the excavators found what they supposed are the foundations of an ancient citadel. Heavy walls twelve feet thick protected it before and behind. At each end of this citadel were massive towers. Another structure, possibly a watch-tower, stood close by. These were the two most important sub-

structures unearthed. No temple or sanctuary was laid bare, but the foundations of many dwellings were disclosed.

Archaeologically eight distinct strata were found to cover the mound, the chief of which are the following:

(1) The lowest of all, the prehistoric, probably Canaanitic. To this stratum, which represents the oldest culture, belong certain dwellings near the citadel, whose foundation walls are unmistakably ancient; the pottery, too, bearing all the marks of antique ware. The culture of this stratum is thought to be Canaanitic; for the remnants of this ancient period are found only in the strata which precede the destruction of the city, and cease suddenly, having no connection with the subsequent Israelite ware beginning from the ninth century B.C., when, as we know from the Old Testament, Hiel the Bethelite, in the reign of Ahab, rebuilt the city (1 Kings 16 34). Accordingly it is claimed that this gap, which is not found elsewhere in Palestine, shows that after the fall of Jericho, in about the thirteenth century B.C., the site was for a long time uninhabited, probably having been used for horticultural or agricultural purposes. Drs. Sellin and Watzinger lay great emphasis on this fact, thus accentuating the harmony between the Old Testament account of the history of Jericho and the verdict of archaeology.

(2) Above the Canaanitic deposits were found many evidences of Israelite culture. Houses of a distinct Hebrew type, built of burnt brick and having stairs of stone, were unearthed near the "fountain hill." Grey, yellow, red, and black pottery was found dating at the latest from the ninth century B.C. To this period are ascribed the foundations of more than thirty small dwellings closely crowded together, and having, what is very remarkable but not uncommon elsewhere, infant-jar burials beneath their floors. Some of these jars are evidently importations from Cyprus and Mycenae.

They are colored with white engobe or lilac-brown coating, which may carry them back to as early as the tenth or even the eleventh century B.C.

(3) Belonging to the late Jewish period were found sherds of black polished ware, of Attic type. Specimens of this kind were found especially numerous on the north side of the citadel. The excavators ascribe them to the fifth or possibly to the fourth century B.C. There were also discovered fragments in terra cotta of human and animal heads, jar-handles bearing Rhodian stamps, in some cases having Aramaic lettering upon them, notably the divine name Yah or Yahu—a distinct novelty in Palestinian archaeology.

(4) To the later Byzantine and Mohammedan periods certain sepulchres containing coins, vessels of glass and stone, clay lamps, knives and other objects of iron, were assigned; also wooden caskets and marble slabs, besides many other objects of lesser importance.

In the fourth chapter of their monograph the authors give a graphic summary of their discoveries, showing the bearing of them upon Israel's history. Pages 171-190 are particularly instructive. The authors freely allow on the basis of the excavations that the Biblical account in Joshua 6 of the taking of Jericho contains an essential kernel of history. The excavations show, they believe, that Jericho was first settled in the dim twilight of the fourth millennium B.C. The castle with its double wall having fallen, they conclude that the account in Joshua 2-7 is that of an actual event. The ceramics found point back to the first half of the second millennium B.C. While many Old Testament authorities hesitate to assign a date to the conquest of Jericho because of the allusions in certain Egyptian inscriptions to the Habiri, and especially because of the descriptions given in the Tell el-Amarna tablets of the conditions prevailing in Canaan at that time, Professor Sellin and Dr. Watzinger conclude with-

out hesitation that "Canaanitic Jericho was destroyed, at the latest, 1500 B.C.," and that for centuries thereafter the city was never rebuilt. In the period after the schism, however, new dwellings and other larger buildings were constructed and the city was inhabited till the downfall of Samaria (722 B.C.). But another long silence ensued shortly after this date, a silence which may have been due to Sennacherib's capture of it. In that case Jericho was probably one of the "forty-six walled towns and cities" which Sennacherib claims to have wrested from Hezekiah, king of Judah, in 701 B.C.

SAMARIA

During the three years, 1908-10, as the readers of this *Review* well know, Harvard University, under the direction of Drs. G. Schumacher and George A. Reisner, conducted extensive excavations at Samaria, one of the most important sites in all Palestine. For a detailed account of what was found, consult Professor Lyon's articles in *The Harvard Theological Review* for January, 1909, April, 1910, and January, 1911.

Between April and August of the first year, 1908, considerable remains were found: for example, a temple of vast proportions, belonging to the Graeco-Roman times, probably Herod's, which was unearthed on the north end of the hill, near the modern threshing floor; a marble statue of heroic size, thought to represent Augustus, on the summit of the hill; a large and well preserved Roman altar; besides the foundations of an immense temple, probably that mentioned by Josephus in his *Wars* (i, 21, 3), which Herod built in honor of Augustus and which Septimius Severus is reported to have repaired. Attached to this temple there was an immense stairway about eighty feet broad, furnishing an approach from the west to what must have been a stately edifice. More-

over, a great massive wall seems to have enclosed the entire temple precincts. This temple or palace, situated on the summit of the hill, was at one time unquestionably the dominant feature of the city.

In 1909 Dr. Reisner carried on most successfully what Dr. Schumacher had so auspiciously begun, discovering that the lower foundations of this presumably Herodian structure were of Hebrew origin, and probably belonged to the palace enclosure of Omri and Ahab. At the west end of the hill also he unearthed a large gateway flanked on either side by two large round towers, which were evidently Roman, resting upon two larger square towers respectively which were probably Greek, and these in turn built upon rock foundations which may well have been originally cut by the Hebrews. He also found at the extreme opposite end of the hill, near the threshing floor, at a point where the famous Street of Columns and the ancient Roman paved road terminated, a large basilica or court of law, which stood closely adjoining the forum of the Herodian city.

In 1910 the previous excavations of the site were carried to the mother-rock. The foundations of the temple on the summit of the hill were still more clearly investigated, and it was eventually found that the four diverse strata of débris on the surface of the *tell* represented four different periods of construction; and that the oldest belonged to the reigns of Omri, who bought the hill, of Ahab, who ruled from about 877 to 854 B.C., of Jehu, and of Jeroboam II. The date of the structure was obtained from an alabaster vase found in the ruins, which bore the name of Ahab's contemporary, Osorkon II of Egypt, who ruled from about 874 to 853 B.C. But the "find" of greatest significance was the *ostraka*, or inscribed potsherds, of which there were not less than seventy-five. In Egypt the *ostraka* which have been found are often inscribed with texts of the most varied

contents—business-letters and contracts, official documents and the like. Those discovered at Samaria seem to have been the inscriptions or labels of a wine shop, or of an oil magazine. For example, they tell about jars of “fine oil” and “old wine,” and give in every case except two the date of the inscription or label, often with the owner’s name attached, and specifications as to whence the oil or wine had come. Number 13 of the series, translated, reads as follows: “In the tenth year (presumably the tenth year of Ahab). From Abiezer. (Belonging) to Shemaryau. A jar of old wine for Asa. From the hill.”

These *ostraka* are all written in the ancient Hebrew character, the same substantially as that in which the Moabite stone (c. 850 B.C.) and the Siloam inscription (c. 700 B.C.) and ancient Phoenician inscriptions are written. The script is a running cursive, written in ink and evidently inscribed with a reed pen. A point or short dash divides the words from one another. The Divine name Yahweh is uniformly spelled Yau. In general these *ostraka* are of special interest to the epigraphist and of immense value to archaeology.

BETHSHEMESH

The excavation of 'Ain Shems, Bethshemesh of the Old Testament, was begun April 6, 1911, by Dr. Duncan Mackenzie, the Field Secretary of the Palestine Exploration Fund, and continued with interruptions until December, 1912. Dr. Mackenzie gives a full account of his “finds” both in the *Quarterly Statement* for 1911–12 and in the *Annals* of the Fund for the years 1911–13. The results of his investigations are also succinctly summarized by Dr. E. W. G. Masterman in the *Biblical World* for August, 1913 (pages 101–109). Bethshemesh archaeologically is regarded as a second Gezer on a small scale.

In the twenty or more feet of accumulated débris which covered the *tell*, Dr. Mackenzie found embedded not less than five periods of civilization, which he is able to trace with reasonable clearness. Belonging to the first, which he calls the Canaanitic period, he designates certain ancient tombs, having shafts but without doors; antique pottery of Egyptian and Cypriote design, such as water jars with vertical handles and rounded bottoms; and Egyptian vessels and scarabs of the 18th Egyptian dynasty. These furnish unmistakable proofs of Egyptian influence, and carry the date of Bethshemesh's civilization as far back as to about 2000 B.C.

To the second or Philistine period (c. 1300–1100 B.C.), which, judging by the thickness of the deposit, was by far the longest of the five periods, certain fragments of painted pottery were assigned. The colors of this pottery revealed a local imitation of Cretan and also of Philistine type. Terra cotta male and female figures were also found; but there were no traces in this stratum of Egyptian influence. The period was brought, it is supposed, to a sudden terminus by a tremendous conflagration, which left the south gate (thought to have been the only entrance to the city) buried beneath thick rubbish, which has prevented the doors being opened or closed ever since. From this it has been inferred that during the Philistine period the city was fortified, whereas during that of the Hebrews, which followed, it remained unwallled. The Hebrews generally are known to have rebuilt little of that which was destroyed by them in taking a city.

The third or Hebrew period, which extended from about 1100 to 700 B.C., is sharply differentiated from its predecessor by a layer of charcoal, which extended pretty generally over the whole site. This is supposed to have been due to the capture of the city by the Hebrews, who burned the ancient Philistine town. The pottery with

stamped handles belonged to this stratum, and bore unmistakable evidence that it was of Hebrew manufacture. On the other hand, none of it was painted or of definitely known Philistine make. During this period the city had no defence. And because in the region of the south gate a two-fold stratification of sun-dried deposits was found, it has been inferred by Dr. Mackenzie that the city must have been burned a second time, probably by Sennacherib and his army on their way to Lachish in 701 B.C. (2 Kings 18 13-17). Subsequent to this time the place seems to have been abandoned for perhaps 1000 years.

Abundant remains of the fourth or Byzantine period (300 to 600 A.D.) were found at the east end of the *tell*. Extensive ruins of a large Byzantine convent or monastery were laid bare. This structure is situated in the south-east corner of the city enclosure and upon the most lofty point of elevation. Its eastern wall seems to have rested on the thick, strong wall which surrounded the city. Dr. Mackenzie thinks this monastery was not yet completed when the city was taken by the Arabs.

To the period of the Arabs little of value is ascribed. The Arabs probably destroyed the monastery after driving out the inhabitants of the city. If they occupied the site at all, they probably rebuilt nothing, but merely lived upon its ruins a simple semi-nomadic village-life till perhaps about 1000 A.D.

The most important discovery made at Bethshemesh from the point of view of the religion and history of the place was the High Place Grotto Sepulchre. The Grotto, which immediately adjoins the sanctuary, runs back underneath the High Place, being approached by spiral steps. The relics found within it point to a time prior to the period of the eighteenth Egyptian dynasty. But this High Place Grotto was not the only instance of sepulture within the city area. There were several

others, some of which had long ago been transformed into cisterns or grain pits. The necropolis proper was situated outside the city wall on the north side. The tombs inside the walls are doubtless the more ancient. It was probably at the end of the first or Canaanitic period that the change from an unwalled to a walled city took place. Then it was that the High Place Grotto got covered up and forgotten, and henceforth the people of Bethshemesh began to bury their dead exclusively outside the city.

But the chief interest of all Dr. Mackenzie's discoveries centres in the High Place itself. While cutting a trench from north to south across the central area of the city, he found, as he tells us, toward the middle of the trench five pillars lying on their sides as though they had been knocked down, the one on the east side being broken in two as if it had been purposely smashed. These stones Dr. Mackenzie regards as the sacred pillars or *boetyls* of a high place, set up in veneration of the dead; the spirit of the departed being imagined by the ancients to take possession of his pillar on the performance of certain ceremonial and magic rites for that purpose. To the south of the high place an ancient well, over sixty feet deep, thought to belong to the Hebrew period, was found. One regrets that the resources of the Fund did not permit of a thorough investigation of the entire site.

OPHEL

During the winter of 1913-14 the Hebrews, represented by Captain Weill, working under the general direction of M. Clermont-Ganneau, began a thorough and scientific investigation of the hill known as Ophel, which is situated just south of the temple area of Jerusalem. Their hope was to find, if possible, the ancient sepulchre of David. Several years ago they purchased a small strip of per-

haps one hundred yards square, extending across the knoll from the Kidron to the Tyropoeon and from above the Virgin's Fountain down almost to the Pool of Siloam. They were allowed to dig, of course, only within the boundaries of the section which they had purchased and now possessed. This circumstance restricted them to a comparatively narrow area and in several respects crippled their work, but enough was accomplished in the few months they were engaged in the task to warrant a brief reference here to the results of their investigation.

Among the objects and facts of interest brought to light by Captain Weill are the following:

(1) The existence of a small tower at the south end of the hill not far from the Pool of Siloam. It rests upon a rock foundation which has been artificially cut down twelve feet and has rounded corners. Only a few courses of ancient masonry remain on top of the rock *in situ*. The suggestion has been made that this may have been "the tower in Siloam" which fell, and which is mentioned in Luke 13 4, but there is no proof that it is. Extending from the tower northward there is a heavy double wall, the inner and narrower one being four feet thick, and the outer eight. These ramparts form, it is supposed, in part at least, the fortifications of the original city of David, the fortress which David wrested from the Jebusites.

Captain Weill described to the writer and his students of archaeology who accompanied him the fortifications of the ancient city thus: first, there was a tower low down near the bottom of the valley; then, an inner wall somewhat higher up; next, a second wall still more elevated; and finally, an inner double wall which was the wall of David. Between the two inner walls great quantities of human skeletons, skulls, and other bones were found lying buried in a heap. Dr. Weill thinks that here we have evidence that the city was once

besieged, and that the dead who were buried here fell probably when attempting to storm the fortress. He dates these skeletons back as far as 600 B.C.

(2) Certain caves and tombs have also been found; but no tomb has as yet been discovered so old as the time of David. One cavity, sarcophagus shaped, but very roughly hewn, is perhaps the oldest of all. Two unmistakable tomb chambers were unearthed higher up on the crest of the hill, and in about the centre of the section excavated. One cave, twelve feet long by six feet broad and six feet high, with an oval roof and walls plastered with cement to keep out the water, was found, which resembles the tombs of Sidon. Another was discovered which was thirty feet long, ten feet broad, and six feet high, of similar type. Doubtless many others exist or existed in this the obvious necropolis of the city. But they have been destroyed by the Romans who subsequently used the place as a quarry. Enough remains, however, to show how tomb-chambers were sometimes cut one above the other; the upper being probably the older of the two. Captain Weill would date the upper storeys from about 500 B.C. and the lower from about 400 B.C. These cave tombs have groove-cuttings in their rock walls to receive the arched roofs. Fourteen inches below these grooves the rock has been rubbed smooth and two horizontal black lines, three inches apart, are discernible on the walls, similar to those in Hezekiah's tunnel, pointing to a possible date for the cave tombs themselves as early as about 700 B.C. All were quite empty; no Hebrew inscriptions were found anywhere. The cuttings are rough and, accordingly, Captain Weill concludes that they are Jewish, but probably not earlier than 500 B.C. Close by these tombs there was a cemented cistern with a bath, which doubtless belongs to early Roman times. A Greek inscription in uncial characters but bearing no date, was

found, which stated that once a synagogue, a hospice, and a bath stood here, having been built for the accommodation of strangers. These are supposed by Captain Weill to date from the age of Hadrian.

(3) But by far the most interesting discovery in the whole site was a rock-hewn underground tunnel-aqueduct, which Captain Weill traced low down on the east side of the hill, running practically parallel to the Tunnel of Hezekiah. In general, both these underground aqueducts follow the same course and are independent of each other. The newly discovered one is considerably further to the east and lower down than the other, and is probably the older of the two. It apparently brought the waters of Gihon, or the Virgin's Fountain, down to the Lower Pool of Siloam, known to the Arabs as the Birket el-Ḥamra, or "The Red Pool," which was probably "the king's pool" of Nehemiah 2 14. We inspected with candles at least two hundred feet of this new tunnel discovered by Captain Weill, and are persuaded that it gives evidence of very great antiquity. In the judgment of Captain Weill it is quite probably several centuries older than the Tunnel of Hezekiah, having been abandoned when the latter was cut. At one point the tunnel was excessively narrow, but we managed to press our way through. A short distance below this narrow point there was left projecting from the rock a jutting undetached bar, apparently intended to be used in damming the water flow. Close by to the left of this jutting bar, an opening in the rock wall of the tunnel allowed the waters which were held back to flow out into the gardens of the valley immediately below.

Captain Weill spent four months in excavating this small belt of the Ophel Hill and practically completed the work of examining all that the Hebrews at present possess. They covet of course more surface to explore.

Perhaps after the war has terminated they may be able to secure a larger tract, and thus be allowed to continue their search for the tomb of the Patriarch David.

MT. ZION

Across the Tyropoeon westward from Ophel rises the traditional Mt. Zion, which is a hill some two hundred feet higher than the eastern Ophel Hill. Here in recent years several new discoveries have been made by the Franciscans and the Fathers of the Assumption, who have been establishing themselves in Jerusalem for the last twenty-five years, chiefly in connection with the annual *Pèlerinages de Pénitence* from France. About twelve years ago the Franciscans purchased from the Armenians twenty acres of ground, which they have since slowly but persistently excavated. Streets, aqueducts, baths, halls paved with beautiful mosaics, and various other objects have been found.

But the most striking discovery made by the Franciscans is an altar or sanctuary, possibly an ancient Jebusite "high place." Father Barnabas Meistermann, author of a *New Guide to the Holy Land*, showed us it. It is situated low down in the earth, on the southern side of a cemetery enclosure, some nineteen and one-half feet below the surface of the accumulated débris which now covers the hill. The fact that it was found buried so deep beneath the rubbish does not of course militate against the supposition that it was once a sanctuary. When Dr. F. J. Bliss and Mr. Macalister excavated Tell es-Safi (Gath?) a few years ago, it will be remembered that they found what they called "a heathen high place" full twenty feet below the surface of the rubbish which covered that hill (cf. Bliss' *Development of Palestine Exploration*, page 280). Close by the supposed sanctuary on Mt. Zion there are unmistakable traces of an old

Roman pavement, also sunken, though not as deeply embedded in the accumulated rubbish of the centuries.

What really the Franciscans have here unearthed is difficult to say. The deep pit of the sanctuary which has been walled up and left open measures thirty-three feet long by twenty-four feet broad. At the bottom of the cavity, which is fully twenty feet deep, there are rock cuttings of peculiar interest. If they do not form part of a sanctuary, one is inclined to ask, what are they? There is first a large boulder of irregular shape, seven feet long by four feet broad; a rock-cut passageway, with three steps two feet broad leading up to it from a rectangular court; the court itself rock-cut, thirteen feet long by eight feet, four inches broad; a reservoir or pool nine feet long by five feet broad; and other grooves and cavities of varying dimensions, some of them cut to receive water; besides niches and alcoves and other cuttings, all suggesting more or less definitely the idea of an ancient sanctuary. Dr. Dalman, however, dissents from this view of Father Barnabas, alleging that it was once an oil press and nothing more. But it is difficult to see in it a single mark pointing in this direction.

Father Barnabas' opinion is that it was once a sanctuary, quite possibly one of the sanctuaries of the ancient Jebusites, and that here on the south-west hill of their ancient city the Jebusites had their High Place of worship. This view is not impossible. For, while the Jebusites may have occupied the lower hill on the east, called Ophel, they almost certainly held in their possession also this higher south-west hill as well. Numerous cisterns, not fewer than thirty, cover the surface of this south-western hill outside the present city walls. Modern Jerusalemites insist still on calling this hill "Mount Zion." Perhaps, as Sir Charles Watson in his excellent little monograph entitled *The Story of Jerusalem* (1912)

points out, both hills were occupied by the Jebusites, the east hill having been allotted to Judah and the west hill to Benjamin (Joshua 15 and 18). The tribe of Judah took the east hill; but Benjamin was not able to take the west hill (Judges 1 8, 21). During the period of the Judges both hills fell back into the hands of the Jebusites. David made the east hill his residence. Joab later captured the west hill, and David made it the people's city. This assumes of course that Jerusalem was from the first a twin city; which fact, if true, would help to explain the dual form of its Hebrew name, *Yerushalayim*, or "two Jerusalems."

The Fathers of the Assumption also have recently (1912) made several noteworthy "finds" in their property, which joins hard upon that owned by the Franciscans. For example, on the eastern slopes of their portion of Mt. Zion, as one descends towards the Pool of Siloam, they have found the Prison of Peter, and the foundations of an ancient church built supposedly over the spot where the Apostle, after having denied his Lord, went out and wept bitterly. They have also unearthed an ancient oil press which is one of the best preserved and most noteworthy in all Palestine; and in their digging they have come upon elaborate Roman baths and residences, and many rock-cut chambers, vaults, cisterns or dungeons; but most important of all, a long, broad, and solid flight of steps running down from the summit of Mt. Zion some three hundred feet or more toward the Tyropoeon valley, reminding one of the stairs which in Nehemiah's time descended from the City of David (Nehemiah 12 37).

These same Fathers of the Assumption, about six years ago, in their excavations on Mt. Zion came upon a set of hollowed-out stones, which have proved to be the measures of capacity mentioned in the Bible. In the series discovered were included also a set of small

vessels containing one-tenth of almost all the liquid measures. Their discovery has been reported by Mr. J. E. Spafford of the American Colony, Jerusalem, and published in *The Journal of the British Archaeological Association* for December, 1912 (pages 220–223). A fuller account of their “finds” is given by Père Germer-Durand, in a lecture published with illustrations in a small volume entitled *Conférence de Saint-Étienne* (1909–10). Through this discovery of the Assumptionists, we are able for the first time to form some idea of what was simply guessed at formerly, and understand better than we ever did before the obscure and vexed question of Bible metrology.

Now from Ezekiel 45 11 we know that the Bath and Ephah were of the same capacity, and from Exodus 16 36 that an Omer is the tenth part of an Ephah. These passages warrant the inference that the metric system underlay the Hebrew metrology. By a comparison of what is taught on this subject by modern Jewish authorities, and these discoveries on Mt. Zion, the following table of Hebrew measures is deduced:

4 Logs make 1 Cab; 3 Cabs make 1 Hin; 2 Hins make 1 Seah; 3 Seahs make 1 Bath; 10 Baths, or Ephahs, make 1 Homer or Cor.

THE STANDARD “TALENT” OF THE SANCTUARY

Another discovery of peculiarly interesting value is that made at Jerusalem in 1912 by the Algerian Fathers of the St. Anne Church and Seminary, namely, the standard *Talent* weight, which was kept in the sanctuary. It is on exhibition in the Museum of the White Fathers at the entrance to the Pool of Bethesda. Its appearance is that of a spherical stone, with flattened bottom, having a rude inscription at either end and weighing forty-two kilos or about nineteen pounds. Its weight accordingly

is about one-third greater than that of the talent of the Assyrians and Babylonians. This helps to explain the discrepancy between the Biblical account of Hezekiah's tribute to Sennacherib, "three hundred talents of silver" (2 Kings 18 14), and the "eight hundred talents" of which Sennacherib boasts in his *stele*, which is now in the British Museum.

During 1913-14 other minor excavations were made outside the Damascus Gate on the north side of the city, which revealed a depth of rubbish exceeding thirty-five feet; and also on the south side near the Dung Gate, where the Jews are building a new hospital. The latter definitely fixes the true course of the Roman Aqueduct which brought the water from Solomon's Pools across the Tyropoeon valley to the Temple area.

BALATA (SHECHEM?)

Another site which has recently been excavated is Balata, a *tell* situated about a mile and a half east of Nablus, modern Shechem, and a few hundred yards west of the Well of Jacob. Here, according to early Christian tradition and the Samaritan Chronicle, stood the oak (*ballut*) of Shechem (Joshua 24 26; Judges 9 6). For two seasons Professor E. Sellin, formerly of Vienna, now of Kiel, has been investigating this place with extraordinary success. He was assisted during the winter of 1913-14 by Drs. Praeschniker and Grohmann, who were exceedingly courteous in showing us about the ruins.

The dimensions of the mound, according to Macalister, are three hundred and twenty-four paces in length from east to west and one hundred and twenty-eight in maximum breadth. In the absence of any evidence of other ancient settlements near to Jacob's Well, Macalister ventures to suggest that "this mound may be the actual site of the long lost Sychar" (*Quarterly Statement*, 1907,

pages 93-94). The Germans, however, believe that here they have discovered the true site of ancient Shechem. Their reasons for thinking so are as follows:

(1) The foundations of many ancient houses unearthed which seem to be Hebrew. These are very irregular and singularly compact, requiring great care to discriminate between the original Hebrew foundations and the more recent superstructures.

(2) A large fragment of the old city wall, several yards in length, very broad and deep, and built obliquely at an angle of about forty-five degrees. This wall is obviously of very ancient masonry; and not improbably, as the Germans suppose, dates back to the period of the Amorites.

(3) The ruins of a large palace, which also gives evidence of extreme antiquity.

(4) But most noteworthy of all, a great triple gateway which is the largest that has ever been unearthed in Palestine. It stands on the west side of the mound, being flanked by the immense fragments of the above-mentioned oblique and possibly Amoritic wall.

Much of the pottery found in the *tell* is also very old. Besides, not far to the east of the site there was recently discovered an Egyptian sarcophagus which is thought to have been that of Joseph. For, despite the claim of the Moslems in Hebron that the Patriarch was buried there, the most ancient tradition known declares he was buried "in Shechem, in the parcel of ground which Jacob bought of the sons of Hamor" (Joshua 24 32). This sarcophagus is now in the museum at Munich.

CARCHEMISH

In 1911 the Trustees of the British Museum began to examine the mound known to the natives of North Syria as Jerablus. It is situated on the right bank of the

Euphrates about fifty miles north-east of Aleppo, and can now be reached by the Baghdad Railroad from the latter place. Jerablus is a *tell* fifty feet high and strongly fortified, having within its extensive wall-enclosure palaces, a citadel, and other public buildings. It is usually identified with Carchemish, the celebrated capital of the ancient Hittites. Already the sum of £10,000 has been expended in excavating the site, to which sum during the winter of 1914 a like amount was added to complete the task. Messrs. C. L. Woolley and T. E. Lawrence were in charge of the expedition during the year 1913-14. Dr. D. G. Hogarth has given a partial account of their discoveries in the *Illustrated London News* for January 24, 1914.

Three gates have been identified, one of which they call the Water Gate because it opens upon the Euphrates; another opening toward the north was just being excavated at the time of our visit in May, 1914; the third, which is perhaps the largest and most important of all, opens toward the south-west and is called by the excavators "The King's Gate." We approached the ruins by this south-west gate, which overlooks the plain on which Nebuchadnezzar checked the conquering career of Pharaoh Necho of Egypt (605 B.C.). On the inside of this gate once stood a palace, from whose jambs ran dadoes from five to six feet high, consisting of richly sculptured slabs of alternate black dolerite and white limestone (a style of architecture still imitated by the people of north Syria), on which were carved figures of bulls and horses and chariots, soldiers with armament like that which the Greeks derived from Asia Minor, officers marching to meet a royal group, a hunter-god, priestesses and acolytes bearing animals for sacrifice, a lion-headed sphinx with a tail ending in a bird's head, and other mythological figures, all in decidedly Hittite style. Concerning these carved figures Dr. Hogarth writes: "The style and execution of these reliefs upset all our

previous ideas about the quality of Hittite art; as do also the sculptures which lined the opposite side of the portal—royal ministers and servants, in whose delineation has been used a grace which is almost Greek.” Close by this south-west entrance there was found the figure of a Carchemish deity, a bearded god of Assyria, again in genuine Hittite style, seated on a heavy base, supported by two lions, which in turn are led by an eagle-headed figure. This deity is regarded by Dr. Hogarth as belonging to the eighth century B.C.

Among other noteworthy “finds” should be mentioned four male heads, belonging to a broken dolerite relief, and ancient vases, dating back perhaps as far as 1500 to 2000 B.C. Everywhere Greek and Roman superstructures cover ancient Hittite remains. An immense stairway has been unearthed, running up the face of the Acropolis on the north. Built upon the terraced face of this Acropolis there once stood a palatial residence, having a shrine-like chamber and an elaborately inscribed portal. Before this portal stood a great laver, resting on two bulls. Numerous ruins were found on the apex of the Acropolis. The Romans once built a great temple here. Sargon II in 717 B.C. is known to have taken Carchemish and to have built a residence for one of his officers at the north end of the city. A series of magnificent tombs have likewise been brought to light on the Acropolis, in which were found pottery and implements of various sorts, and seals dating probably from the second millennium B.C. and following. Indeed the stratification of the débris at Jerablus gives, it is claimed, orderly evidence from the Neolithic age down to the close of the Bronze age. The development of Hittite plastic art also can now be studied from its cradle to its grave; likewise the hieroglyphic texts, of which more than one hundred new ones have come to light.

Summing up the discoveries at Carchemish, the most important is a long Hittite hieroglyphic text, guessed to belong to the ninth century B.C., which is declared by the discoverers to be the longest Hittite inscription as yet known. But unfortunately no one can read it. As Dr. Hogarth freely allows, "The Hittite script cannot yet be read by modern man." Messrs. Woolley and Lawrence are hoping to discover a bi-lingual key.

The view from Jerablus, looking east over the Euphrates into Mesopotamia, is extensive.

THE SURVEY OF THE NEGEB

During the opening months of 1914, the Palestine Exploration Fund through its Field Director, Captain Newcombe, was actively engaged "in connecting the Egyptian triangulation of the Sinai Peninsula with that of the earlier Palestine Survey." The task assigned him implied the mapping of the Ottoman Province of Gaza from Beersheba southward to Akaba and eastward to the Wady Araba; in other words, to prolong the first survey of Palestine to the Egyptian frontier. Messrs. Woolley and Lawrence, who were in charge of the British Museum's excavations at Carchemish, were invited to join the expedition and report upon any observations in the Negeb of strictly archaeological interest.

Reports of the Survey have been given by Mr. Woolley in the *Quarterly Statement* for April, 1914 (pages 58-66), and by Captain Newcombe in the issue of the same *Journal* for July, 1914 (pages 128-133); but a fuller archaeological and geographical report of what was really accomplished may be found in the recently published Double Number of the *Palestine Exploration Fund Annual* for 1914-15, entitled *The Wilderness of Zin*. In this more formidable and exhaustive report of their brief visit to the Negeb, the authors, Messrs. Woolley and

Lawrence, give an account of their route, the history of the district, the ancient caravan route from Hebron to Egypt, their reasons for identifying Kadesh-Barnea with 'Ain Kadees, together with an extended review of the Byzantine remains still found in the northern part of the district which they surveyed, and of the mediaeval remains near Akaba. They also supply a much-felt want in giving to the Biblical world two new maps of the district, compiled with the permission of the War Office from the survey materials.

Though the time spent in the undertaking was brief, the whole work was completed with the exception of a small area near Akaba, which the Turkish authorities were unwilling to have the English survey.

DISCOVERIES BY NATIVES

It remains only to mention two or three further discoveries made by the natives of Palestine in different parts of the country; their "finds" coming sooner or later, accidentally, to the notice of western archaeologists.

Early in 1913 the government authorities in Jerusalem received information that a richly carved marble sarcophagus had been found at Turmus 'Aya, near Shiloh. This little village is on the carriage-road from Jerusalem to Nablus, being about eighteen miles north of the Holy City. The name of the village has suggested a possible relationship between it and the Thormasia of the Talmud. It has not been identified, however, with any Biblical site. Mr. Jacob E. Spafford of the American Colony in Jerusalem contributes a description of its discovery to the *Journal of the British Archaeological Association* for June, 1913 (pages 115 ff.).

Two large sarcophagi were here unearthed, both however without any inscription to furnish a clew to their

origin. The larger of the two was cut out of white marble and left quite without ornamentation. It measured approximately eight feet in length by four in breadth, being carefully dressed on the outside surface, but somewhat carelessly and irregularly chiselled on the inside. Its lid was of the gable-shape type, found elsewhere in Palestine and Syria. For example, there is a remarkably ornate Roman sarcophagus lying exposed to the public about two miles out from Antioch in north Syria on the roadside between that city and Daphne. Its gable-roofed cover lies one hundred feet distant from the sarcophagus itself. Both are richly decorated with carved figures, heads, and garlands; but the lid is cruelly hacked by the vandals of the district, who have evidently tried to break it in two in order to transport it. Otherwise the sarcophagus is in a most perfect state of preservation, and should be protected from further possible and almost inevitable vandalism.

At Turmus 'Aya, the chief interest centres round a sarcophagus of similar design. Besides the plain one already mentioned, there was discovered another richly carved, also of white marble and ornamented with elaborate figures and designs. Its style points to the Greek period prior to the Roman occupation. It probably dates from the second century B.C. The art is admirable, though pronounced by specialists as inferior to that of the so-called tomb of Alexander found at Sidon, which is now in the Turkish Museum in Constantinople. Though it was mutilated and only large fragments still exist, still there were enough, together with the lid, to give some idea of its character and beauty. Male and female figures adorn it in bold relief; representations of Bacchus, of waves of the sea and boats, of horses and men and dragons, of fruits and flowers and cornucopias, cover its entire front. The symbolism of its carvings has been studied by a Frenchman, M. Michon, who has

found that they represent the four seasons, winter, spring, summer, and autumn, with figures of the earth and ocean.

Whose mausoleum it may have been in which these sarcophagi were found, it is difficult to say. But in view of the fact, as Mr. Spafford points out, that in this same neighborhood, not more than ten minutes from Turmus 'Aya, there are the ruins of an imposing temple, called Kefr Istuná, the artistic work on which resembles the unusual type on this sarcophagus, and inasmuch as the Elephantine papyri mention a certain Ishtuma as a resident at that time in Jerusalem, it is quite possible that this Ishtuma may have been the builder both of this noble temple and of this remarkably ornate mausoleum.

AN INSCRIBED MOSAIC NEAR MT. NEBO

Returning from Petra in March, 1914, the writer and his students from the American School of Oriental Research in Jerusalem visited Madeba and Mt. Nebo, and about one mile south of the summit of the latter, in a region called by the Arabs Ard el-Muheit, examined a newly found mosaic which an Arab peasant had shortly before discovered while building a house or barn for his grain. In constructing his granary the Arab had used the materials of an old chapel or church and had built upon its foundation. After completing his structure, when he began to level off the interior to make the floor he found a beautiful mosaic, one of the most beautiful in Palestine, which must have originally formed the floor of some church, possibly of a mortuary chapel.

It is thirty-six feet long by twenty-seven feet broad, being richly adorned in colors, with figures of animals and men, aquatic creatures, and quadrupeds of various kinds. The whole is in an excellent state of preservation. Along the borders of the mosaic work there are three Greek in-

scriptions which have been translated and published with notes by my student and friend, Mr. Willard H. Robinson Jr., B.D., in the *American Journal of Archaeology*, 1914 (pages 492-498). They date probably from about the fourth century A.D. The largest and most important of the three, which is inscribed in front of the altar, consists of six lines and tells of the prayers of certain devotees to the god of the "Holy Lot" and of the "Holy Procopias"—obviously the patron saints of the chapel.

The designation of Lot as a patron saint seems at first striking; but, as is known, an Armenian version of a Jerusalem ritual mentions that Abraham and Lot were both revered in Galilee in the seventh century; and the seventh and eleventh Suras of the Koran assert that "Lot was sent as a preacher to the people of the Five Cities to deter them from their vices." These views, therefore, as Mr. Joseph Offord suggests, "have probably been taken over by the prophet from some Moabite or Ammonite traditions, which were also familiar among the Madeba people at the period the newly found inscriptions were engraved, and later up to the Hegira" (*Quarterly Statement*, April, 1915, page 92).

A VISIT TO THE CAVE OF MACHPELAH

We cannot close our survey of the archaeological conditions prevailing today in Palestine without an allusion to our visit to the interior of the mosque over the Cave of Machpelah in Hebron. It was on April 7, 1914, that the Hon. Henry Morgenthau, our United States Ambassador to Turkey, invited us to join his party. Non-Moslems are usually forbidden to enter this sacred place. The last Englishman to gain admission was Lord Northbrook, ex-Viceroy of India, in 1895; the last American, the Hon. James P. Angell, in 1898; and the last German, Prince Eitel Friedrich, in 1910. The

late King Edward VII as Prince of Wales, in 1862, and King George, also as Prince of Wales, in 1882, were among the few who were granted by the Sultan an entrance during the nineteenth century. Lord and Lady Bryce accompanied our party. A special *iradé*, or order from the Sultan, is necessary to enter. Unfortunately, the Moslems of Hebron are too bigoted to allow entrance to the cave itself. No one since Rabbi Benjamin of Tudela in 1163 A.D. has ever descended the twenty-four steps leading from the floor of the mosque to the bottom of the cave. So long as Moslems rule over Palestine, there is little hope of making a scientific investigation of this sacred enclosure. But while this special privilege may yet long be denied the archaeologist, there are other sites also most inviting, such as Kiriath-sepher, Gerar, Caesarea, and Machaerus, which may and ought to be explored.